

### AMENDMENTS TO THE CLAIMS

Please amend the claims without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows.

Please cancel claims 30-43, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents.

1. (Currently Amended) A method for determining the volume of a dispensed liquid sample, comprising the steps of:

- providing a volume of a diluent in a container;
- dispensing a liquid sample into said ~~diluent in the~~ container;
- mixing the dispensed liquid sample with said diluent in the container;
- staining of said mixture in the container ~~by adding~~ with a chromophoric indicator;
- measuring the optical absorption of said stained mixture in the container; and
- determining the volume of the dispensed liquid sample by correlating said measured optical absorption of the mixture with the optical absorption of a test sample that has an exactly defined concentration of the same chromophoric indicator,

wherein the chromophoric indicator to stain the mixture of sample liquid and diluent is formed by complexing indicator ions with specific chromogenic ligands.

2. (Currently Amended) A method for determining a residual volume of a liquid in a sample holder, which is ~~had been~~ provided with a liquid and from which a part of the liquid is ~~has been~~ removed, so that only said residual volume of the liquid remains in the sample holder, the method comprising the steps of:

- adding a chromophoric indicator to said liquid to achieve a specific concentration of said indicator and thereby specific staining of at least the residual volume of the liquid,
- removing a part from said ~~stained~~ liquid in the sample holder,
- adding a diluent to the ~~stained~~ residual volume of the liquid, and
- measuring the optical absorption of the diluted residual volume of the liquid,
- determining the residual volume of the liquid by correlating the measured optical absorption of the diluted residual volume of the liquid with the optical absorption

of a test sample that has the same specific concentration of the chromophoric indicator,

wherein the chromophoric indicator to stain the liquid is formed by complexing indicator ions with specific chromogenic ligands.

3. (Currently Amended) The method according to Claim 1, wherein, prior to dispensing the liquid sample into the container, the chromophoric indicator ions are complexed with the specific chromogenic ligands and added to the liquid to be dispensed as a colored complex solution with an exactly known concentration of the chromophoric indicator.

4. (Currently Amended) The method according to Claim 2, wherein, prior to ~~dispensing~~ providing the liquid sample into the sample holder, the chromophoric indicator ions are complexed with the specific chromogenic ligands and added to the liquid to be ~~dispensed~~ provided into the sample holder as a colored complex solution with an exactly known concentration of chromophoric indicator.

5. (Currently Amended) The method according to Claim 1, wherein, prior to dispensing the liquid sample, a compensating volume is provided in the container as part of the diluent.

6. (Currently Amended) The method according to Claim 2, wherein, after a part from said liquid has been removed from the sample holder so that only said residual volume of the liquid is remaining in the sample holder prior to dispensing the liquid sample, a supplementary compensating volume is provided in ~~a sample holder~~ the container as part of the diluent, which is an existing reaction solution that comprises chromogenic ligands, which thereby are complexed to develop a color.

7. (Previously Presented) The method according to Claim 1, wherein, prior to dispensing the liquid sample, an indicator salt is added to the liquid in order to provide a known concentration of chromophoric indicator ions in the liquid to be dispensed, a sample of the liquid is dispensed into the diluent, which is an existing reaction solution that comprises chromogenic ligands, which thereby are complexed to develop a color.

8. (Previously Presented) The method according to Claim 1, wherein, before being added to the liquid to be dispensed and for improving their solubility in said liquid, the chromophoric indicator ions are complexed with auxiliary ligands and added to the liquid to be dispensed, a sample of the liquid is dispensed into the diluent, which is an existing reaction

solution that comprises chromogenic ligands, which thereby are complexed with the indicator ions while suppressing the auxiliary ligands and under color development.

9. (Currently Amended) The method according to Claim 6 or 7, wherein the chromogenic ligand is added to the existing reaction solution in excess.

10. (Currently Amended) The method according to Claim 8 or 47, wherein the chromogenic ligand is added to the existing reaction solution in excess.

11. (Currently Amended) The method according to claim 1, 3, 4, 5, 7, 7, or 8, 9, or 10, wherein, after dispensing the liquid sample into a sample holder well, a supplementary volume is added to this sample holder well as part of the diluent.

12. (Previously Presented) The method according to Claim 1 or 2 wherein metal ions are used as indicator ions for complexing with the chromogenic ligands.

13. (Previously Presented) The method according to Claim 12, wherein the metal ions are  $\text{Fe}^{++}$ ,  $\text{Fe}^{+++}$  (or mixtures of  $\text{Fe}^{++}$  and  $\text{Fe}^{+++}$ ), or  $\text{Cu}^{++}$ .

14. (Previously Presented) The method according to Claim 1 or 2 wherein anions are used as indicator ions for complexing with the chromogenic ligands.

15. (Previously Presented) The method according to Claim 14, wherein the anions are  $\text{F}^-$ ,  $\text{Cl}^-$ , or  $\text{H}_2\text{PO}_4^-$ .

16. (Cancelled)

17. (Previously Presented) The method of claim 22, wherein the metal ions are  $\text{Fe}^{+++}$ .

18-21. (Cancelled)

22. (Previously Presented) The method according to Claim 12, wherein, prior to complexing with the chromogenic ligands, metal ions which cannot be quantitatively complexed with the chromogenic ligands are reduced or oxidized to indicator ions which can be complexed with said ligands.

23. (Previously Presented) The method according to Claim 22, wherein hydroxyl amine hydrochloride, tartrate salts, or ascorbic acid is used as a reducing agent, and hexacyanoferrate or elementary bromine is used as an oxidizing agent.

24. (Previously Presented) The method according to Claim 1 or 2, wherein polydentate molecules are used as specific chromogenic ligands.

25. (Previously Presented) The method of claim 24, wherein the polydentate ligand molecules are selected from FerroZine<sup>®</sup>, bathophenanthroline-disulfonic acid disodium, bathocuproine-disulfonic acid disodium, and Chromazurol S.
26. (Currently Amended) The method according to claim 8 or 47, wherein  $\beta$ -diketones are used as auxiliary ligands.
27. (Previously Presented) The method of claim 26, wherein the  $\beta$ -diketones are selected from a group comprising acetyl acetonate and pentane-2,4-dione-1,5-diol.
28. (Previously Presented) The method of claim 14, wherein anthraquinone functionalized systems covalently bonded at the  $\beta$  position are used as chromogenic ligands.
29. (Previously Presented) The method of claim 28, wherein the anthraquinone functionalized system covalently bonded at the  $\beta$  position is calix[4]pyrrole-anthraquinone.
- 30-43. (Cancelled)
44. (Previously Presented) The method according to Claim 1 or 2, wherein the chromophoric indicator has a three-dimensional coordination geometry, which greatly hinders adsorption of this type of molecule on apolar surfaces.
45. (Previously Presented) The method according to Claim 25, wherein the chromophoric indicator comprises substituted ionic groups that further amplify the hydrophilic properties of the chromophoric indicator.
46. (Previously Presented) The method according to Claim 1, wherein metal ions, which cannot be quantitatively complexed with the chromogenic ligands, are complexed with auxiliary ligands for improving their solubility in a liquid, a sample of said liquid is dispensed into the diluent, which is an existing reaction solution that comprises chromogenic ligands and a reducing or oxidizing agent, which reducing or oxidizing agent is reducing or oxidizing the metal ions to indicator ions that are then complexed with the chromogenic ligands under color development.

Please add the following new claim:

47. (New) The method according to Claim 2, wherein, before being added to the liquid to be provided in the sample holder and for improving their solubility in said liquid, the chromophoric indicator ions are complexed with auxiliary ligands and added to the liquid to be provided, then a part from said liquid is removed from the sample holder and a diluent is added to the sample holder, which diluent is an existing reaction solution that comprises chromogenic

ligands that thereby are complexed with the indicator ions while suppressing the auxiliary ligands and under color development.